

## **ABSTRACT OF THE DISCLOSURE**

A sensor and method of use for detection of low levels of carbon monoxide in gas mixtures. The approach is based on the change in an electrical property (for example: resistance) that occurs when carbon monoxide is selectively absorbed by a film of copper chloride (or other metal halides). The electrical property change occurs rapidly with both increasing and decreasing CO contents, varies with the amount of CO from the gas stream, and is insensitive to the presence of hydrogen. To make a sensor using this approach, the metal halide film will be deposited onto an alumina substrate with electrodes. The sensor may be maintained at the optimum temperature with a thick film platinum heater deposited onto the opposite face of the substrate. When the sensor is operating at an appropriate (and constant) temperature, the magnitude of the electrical property measured between the interdigital electrodes will provide a measure of the carbon monoxide content of the gas.